

II. CLAIM AMENDMENTS

1-32 (cancelled)

33. (Currently amended) A method for decoding encoded video information, the ~~encoded video information comprising quantized motion coefficients and quantized prediction error coefficients, said quantized motion coefficients representing the motion of a picture element with respect to a piece of reference video information and having a certain accuracy, said quantized prediction error coefficients representing a piece of prediction error video information, the method comprising:~~

- determining a prediction error quantizer from the encoded video information, the prediction error quantizer used to quantize the prediction error transform coefficients which are quantized; and
- determining the an accuracy of the motion coefficients ~~using the motion coefficients which are quantized based on the prediction error quantizer, the motion coefficients representing the motion of a picture segment;~~
- ~~performing inverse quantization of the quantized motion coefficients using the accuracy of the motion coefficients;~~
- ~~forming prediction video information for the picture element from the piece of reference video information, using the inverse quantized motion coefficients; and~~
- ~~performing inverse quantization of the quantized prediction error coefficients using an inverse quantizer corresponding to said prediction error quantizer.~~

34. (Currently amended) The method for decoding encoded video information according to claim 33, further comprising:

- receiving signalling information indicating the ~~selected a~~ motion coefficient quantizer for determining the accuracy of the motion coefficients.

35. (Currently amended) A decoder for decoding encoded video information, the decoder comprising:

- ~~a demultiplexing unit for an input unit for receiving encoded video information from a video encoder, the encoded video information comprising quantized motion coefficients and quantized prediction error coefficients, said quantized motion coefficients representing the motion of a picture element with respect to a piece of reference video information and having a certain accuracy, said quantized prediction error coefficients representing a piece of prediction error video information, the input unit being configured to:~~
- ~~determine determining a prediction error quantizer from the encoded video information, the prediction error quantizer using used to quantize the prediction error transform coefficients which are quantized; and~~
- ~~a motion field coding block for determining an determine the accuracy of the motion coefficients using the motion coefficients which are quantized based on the prediction error quantizer, the motion coefficients representing the motion of a picture segment; and~~
- ~~a motion compensated predictor that is coupled to the input unit and is configured to:~~
- ~~perform inverse quantization of the quantized motion coefficients using the accuracy of the motion coefficients; form prediction video information for the picture element from the piece of reference video information, using the inverse quantized motion coefficients; and~~
- ~~perform inverse quantization of the quantized prediction error coefficients using an inverse quantizer corresponding to said prediction error quantizer.~~

36. (Currently amended) The decoder for decoding encoded video information according to claim 35, wherein the ~~input~~ demultiplexing unit is further configured to:

- determine signalling information indicating ~~the selected a~~ motion coefficient quantizer for selecting the accuracy of the motion coefficients from the encoded video information ~~from the received encoded video information.~~

37. (Currently amended) A computer software program stored on a computer-readable medium, the software program causing the computer to perform a method for decoding encoded video information,

- ~~receiving the encoded video information comprising quantized motion coefficients and quantized prediction error coefficients, said quantized motion coefficients representing the motion of a picture element with respect to a piece of reference video information and having a certain accuracy, said quantized prediction error coefficients representing a piece of prediction error video information, the method comprising:~~
- determining a prediction error quantizer from the encoded video information, the prediction error quantizer using used to quantize the prediction error transform coefficients which are quantized; and
- determining ~~the an~~ accuracy of the motion coefficients using the motion coefficients which are quantized based on the prediction error quantizer, the motion coefficients representing the motion of a picture segment;
- ~~performing inverse quantization of the quantized motion coefficients using the accuracy of the motion coefficients;~~
- ~~forming prediction video information for the picture element from the piece of reference video information, using the inverse quantized motion coefficients; and~~
- ~~performing inverse quantization of the quantized prediction error coefficients using an inverse quantizer corresponding to said prediction error quantizer.~~

38. (Currently amended) The computer software program according to claim 35, wherein the method further comprises:

- receiving ~~signalling~~ information indicating the ~~selected~~ motion coefficient quantizer for determining the accuracy of the motion coefficients.

39. (Currently amended) ~~A receiver~~An apparatus comprising a decoder for decoding encoded video information, wherein the decoder comprises:

- ~~an inverse quantization unit for an input unit for receiving encoded video information from a video encoder, the encoded video information comprising quantized motion coefficients and quantized prediction error coefficients, said quantized motion coefficients representing the motion of a picture element with respect to a piece of reference video information and having a certain accuracy, said quantized prediction error coefficients representing a piece of prediction error video information, the input unit being configured to:~~
- ~~determine~~determining a prediction error quantizer from motion coefficients of the encoded video information, the prediction error quantizer using which the~~the~~serving to quantize prediction error ~~transform coefficients are quantized; and~~
- a further quantization unit for ~~determine~~determining an the accuracy of the motion coefficients ~~using the motion coefficients which are quantized based on the prediction error quantizer, the motion coefficients representing the motion of a picture segment; and~~
- ~~a motion compensated predictor that is coupled to the input unit and is configured to:~~
- ~~perform inverse quantization of the quantized motion coefficients using the accuracy of the motion coefficients;~~

- ~~—form prediction video information for the picture element from the piece of reference video information, using the inverse quantized motion coefficients; and~~
- ~~—perform inverse quantization of the quantized prediction error coefficients using an inverse quantizer corresponding to said prediction error quantizer.~~